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REMARKS

The present response is intended to be fully responsive to all points of objection and/or rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application is respectfully requested.

Applicants assert that the present invention is new, non-obvious and useful. Prompt consideration and allowance of the claims is respectfully requested.

Status of Claims

Claims 1-13 are now pending in the application.

Claims 1-12 have been rejected.

Claim 1 has been amended for clarity in this submission. Applicants respectfully assert that the amendments to the claims add no new matter.

New claim 13 has been added in order to further define what the Applicants consider to be the invention. Applicants respectfully assert that no new matter has been added.

The Telephone Interview

Initially, Applicants wish to thank Examiner Stewart A. Fraser, and Supervisory Primary Examiner Mark Huff, for granting and conducting the telephone interview with Applicants' Representative, Morey Wildes, Reg. No. 36968 on September 22, 2009. In the interview, claim 1 was discussed, as were Ziger reference (US 2003/00157415) and Zait et al. reference (US 2002/0086245).

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CLAIM REJECTIONS

35 U.S.C. § 103 Rejections

In the Office Action, the Examiner rejected claims 1-11 under 35 U.S.C. § 103(a), as being unpatentable over Ziger (US 2003/00157415) in view of Zait et al. (US 2002/0086245).

Applicants respectfully traverse the rejection of claims 1-12 under Ziger in view of Zait et al at least for the reasons that follow:

Ziger discloses an apparatus and a method for compensating critical dimension deviations across a photomask. In this method, a photomask is partitioned into a plurality of regions. A critical dimension is then measured for each of the regions in the photomask. Based on the measured critical dimensions, a deviation map is generated to map deviation of the critical dimension from a target dimension for each of the regions in the photomask. From the deviation map, an amount of actinic radiation needed to be attenuated to compensate for the critical dimension deviation from the target dimension is determined for each of the regions of the photomask. Based on the determined attenuation amount of actinic radiation, the transmission of the actinic radiation through each of the regions in the photomask is attenuated such that the critical dimension deviation is compensated to the target dimension for each of the regions in the photomask. Ziger suggests several ways for transmission attenuation which include absorbing species (dopants) and deposition of semi-transparent material over selected mask regions

Ziger does not suggest or teach a method for compensating for critical dimension (CD) variations of pattern lines of a wafer that includes "using laser radiation providing Shading Elements within the substrate of the photomask in regions which correlate to regions of the wafer exposure field where CD variations greater than a predetermined target value were determined, the shading elements forming correction patterns across the correlating regions", as is claimed in amended independent claim 1.

Zait et al. disclose a method of performing reverse writing on a reticle blank. Zait et al. do not suggest or teach a method for compensating for critical dimension (CD) variations of pattern lines of a wafer that includes "using laser radiation providing Shading Elements within the substrate of the photomask in regions which correlate to regions of the wafer

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exposure field where CD variations greater than a predetermined target value were determined, the shading elements forming correction patterns across the correlating regions", as is claimed in amended independent claim 1.

Applicants assert that neither Ziger nor Zait et al., alone or in combination, teach or suggest, a method for compensating for critical dimension (CD) variations of pattern lines of a wafer that includes "mapping CD variations across regions of a wafer exposure field relating to the photomask" and "using laser radiation providing Shading Elements within the substrate of the photomask in regions which correlate to regions of the wafer exposure field where CD variations greater than a predetermined target value were determined, the shading elements forming correction patterns across the correlating regions", as is claimed in amended independent claim 1. It would not be obvious to include a method for compensating for critical dimension (CD) variations of pattern lines of a wafer that includes "mapping CD variations across regions of a wafer exposure field relating to the photomask" and "using laser radiation providing Shading Elements within the substrate of the photomask in regions which correlate to regions of the wafer exposure field where CD variations greater than a predetermined target value were determined, the shading elements forming correction patterns across the correlating regions" in Ziger. Thus, neither Ziger nor Zait et al., alone or in combination, teach or suggest the invention of claim 1.

An obviousness rejection requires a teaching or a suggestion by the relied upon prior art of all the elements of a claim (M.P.E.P. §2142). Since Ziger or Zait et al., alone or in combination, do not teach or suggest all the elements of independent claim 1, the Examiner fails to establish a prima facie showing that Ziger nor Zait et al., alone or in combination, teach or suggest every feature of claim 1.

Accordingly, Applicants respectfully assert that amended independent claim 1 is allowable. Claims 2-11 depend from, directly or indirectly, claim 1, and therefore include all the limitations of that claim. Therefore, Applicants respectfully assert that claims 2-11 are likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to amended independent claim 1 and to claims 2-11 dependent thereon.

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In the Office Action, the Examiner rejected claim 12 under 35 U.S.C. § 103(a), as being unpatentable over Ziger in view of Zait et al., and in further view of Borrelli et al. (US 2002/0076655).

Applicants respectfully traverse the rejection of claim 12 under Ziger in view of Zait et al. and Borrelli et al, at least for the reasons that follow:

As stated above, Applicants respectfully assert that amended independent claim 1 is allowable. Claim 12 depends from, directly or indirectly, claim 1, and therefore includes all the limitations of that claim. Therefore, Applicants respectfully assert that claim 12 is likewise allowable. Accordingly, Applicants respectfully request that the Examiner withdraw the rejections to dependent claim 12.

In view of the foregoing amendments and remarks, the pending claims are deemed to be allowable. Their favorable reconsideration and allowance is respectfully requested.

Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Please charge any fees associated with this paper to deposit account No. 50-3355.

Respectfully submitted,

/Guy Yonay/

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